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Western psychologists define "set" as a group of items, a disposition toward certain stimuli or certain responses, and the establishment of habitual actions. D. N. Uznadze explains "set" by postulating a general tendency toward habitual action, but qualifies this by stating that the tendency is governed by special factors within the individual. The predisposition to respond in a certain way is determined by the experiences and character of the individual. The internal organization of the individual which organizes the experiences and creates the illusion of similarity between situations is, according to Uznadze, unitary: it cannot be categorized as motor or mental. Uznadze's experiments deal with illusions which are prepared by experience. The majority of subjects, after having been asked to choose between spheres unequal in size a number of times, continued to perceive equal pairs as unequal. Uznadze also induced "set" in subjects under hypnosis, thus eliminating the influence of intent. The cognitive process is involved, however, through "objectification." This process enables us to experience something as an object, and is closely linked with "set." Their interaction keeps our subjective reality close to objective reality by a series of approximations. (RM)

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A.E.R.A. SYMPOSIUM

SOVIET PSYCHOLOGY OF SET AS RELATED TO PARAMETERS OF THE EDUCATIONAL PROCESS

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THE PSYCHOLOGY OF SET

D. N. Uznadze spent the majority of his lifetime investigating the unitary nature of set, as opposed to the polymorphous description prevalent in modern experimental psychology. A comparison of Soviet and Western approaches to set will be given in a later paper. A brief description is also provided in the Glossary, pages 7-9.

Uznadze's interest in set dates from his student days at Leipzig, where he obtained his Ph.D. in psychology under Wundt. It was here that Uznadze became interested in the illusions of weight, as reported by Fechner, Charpentier, and Ach. These reports attempted to explain illusions in terms of peripheral sensations only. Uznadze, dissatisfied with these explanations, devised analogous illusions (e.g., illusions of pressure, volume, brightness, quantity) in which illusions were demonstrated in the absence of such peripheral sensations. Uznadze considered the results of these demonstrations as evidence that the reactions under discussion, initiated as they are by the action of stimuli, are also concomitantly determined by the internal organization of the individual. In terms of the Uznadze illusions the preparatory response is, in its ensuing effects, mediated by an "intermediate organization of experience" (Uznadze) of such a kind that its significance is not restricted to action within some discrete sensory modality but rather encompasses all sensory modalities. In this way Uznadze demonstrated the unitary nature of set and the inadequacy of characterizing sets as either "motor" or "mental." Consequently, in the case of illusions of weight and their analogues, set, as a pre-orientation and pre-disposition to respond in a definite way, is the general constitutive factor of the intervening organization of experience and

of the intrinsic organization of the individual. A set-induced illusion and its consequences invariably occur when a conflict arises between the individual's presently active set and the situation to which he is exposed. Such a situation allows for the formulation of a general principle of the psychology of set, namely, set is conceived as a disposition to respond in a definite way.

The presence of set or a readiness to respond, under experimental conditions, is evidenced when some change is introduced into the objective situation in which a readiness for the given action has been evolved. That is, there exists for any given action a readiness to respond in a definite manner. This readiness is most evident when the given objective situation which elicited the readiness is changed. This experimental method enables one to study the intrinsic nature of set, from the moment of fixation, its role in the development and extinction of illusions of perception, and of analogous mental processes.

The Uznadze method of fixated set is as follows. The subject is required to solve some experimental task. These instructions presumably induce a state of need in the subject. Subsequently, two spheres of unequal size are presented and the subject is requested to make a quantitative appraisal of the spheres as to which is larger and which is smaller. The action of the spheres induces a set to respond to the quantitative differences in a particular way and it is this set which constitutes the basis of a given perception. In the experimental situation set emerges as the resultant of the interaction of need (the task-impelled need to appraise the size of the spheres) and the objective situation (the unequal size of the spheres). The task is repeated a number of times (10 to 15 exposures) in order to fixate in the subject the primary set for appraisal of the sphere as "larger-smaller" (set

fixation trials). Once the set is fixated, the subsequent exposures (say from the 16th trial on) present a changed situation: equal spheres are now substituted for the unequal spheres of the set fixation trials. These exposures of the equal spheres constitute the critical trials. In the majority of cases, the critical trials reveal in the subject the persistence of a set to inequality in the form of a perceptual illusion; that is, the subject continues to perceive the equal spheres as unequal. Such data indicate that a specific state has been induced in the subject as a result of the set fixation trials and that this state constitutes a disposition or readiness to act in a definite way. This specific state is termed a set. The requirements for the emergence of set are a need, a situation, and a basic level of perception.

During the course of set extinction, Uznadze found that the transition from a set illusion to an adequate perception of the equal spheres had a phasic nature. A description of the course of set extinction is provided in the Glossary, page 9.

Investigations into the experimental fixation and extinction of set have shown set to be multidimensional in nature. A description of the attributes of set is provided in the Glossary, page 9.

Investigations have also been carried out with regard to qualitative relationships. The data indicate that when fixating a set for qualitative relationships the same structural characteristics are in evidence as when fixating a set for quantitative relationships.

One of the most revealing set-inducing experiments was conducted by Uznadze with subjects under hypnosis. Uznadze found that even under hypnosis the subjects evolved a corresponding set. In this situation,

set cannot be equated with the content of consciousness nor be reduced to any psychological fact such as intention, expectation, imposed task, and so on. "Therefore," to quote Uznadze, "set, as preparedness for activity, should undoubtedly be conceived as the state of the integral subject's own self." Whereas systems of action undergo various changes, set stands out as an integrated structure with a constant configuration of characteristics. This justifies the explication of set as the factor underlying an individual's inner organization and thereby largely contributive to inner cohesion, consistency of behavior, and to the structural stability of the individual's activity. Consequently, set is not the "resultant of behavior" but the precondition of purposive adaptive behavior. To quote Prangishvili, "set should be conceived of as that integral personality mode of the individual at each discrete moment of his activity which a) brings into focus, as it were, all those inner dynamic relations that mediate in the individual the psychological effect of stimuli acting on him, and b) provides the basis for the emergence of definitely oriented activity as a process of bringing into balance the relationships obtaining at the moment between the individual and his environment."

The establishment of an equilibrium between the individual and his environment requires the participation of cognitive processes. This necessarily presupposes the existence of a preliminary act--that of objectification. Objectification is the process which "enables us to experience something as actually given, as an object" (Uznadze). The mental activity which ensues from the act of objectification, while distinct from objecti-

fication, is intimately linked with set*.

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*Through the process of objectification the subjective world of man or his model of reality comes to approximate more and more objective reality. In essence, objectification is concerned with the successive approximations of the subjective representation to objective reality. This implies that there are degrees of consciousness. The more accurate the subjective model of reality and the wider the scope of reflection of reality, the greater is the degree of consciousness. The intellectual behavior established through objectification develops out of set. Set in man is conditioned directly by his environment. Whenever there is a disruption in the activity of this kind of set, a problem situation emerges which forces the individual to attend to the situation. In other words, when the act of set realization is retarded, the individual becomes aware of the retardation in the flow of behavior and turns to the act of objectification. As Uznadze says, there emerges the questions: "What is this?" "Why is it so?" "What would happen if things were different?" With the emergence of the problem comes also an imagined situation to solve it, the result of which is the appearance of a definite set. "Every separate act of thought arises from the base of this set and represents a separate case of its realization" (Uznadze). Consequently, thought flows on the basis of objectification in which set exists in a displaced form. Through the development of cognitions by means of objectification, there emerges a new stratum of set states in man which determine and define his behavior. Since objectification is accomplished by the use of language and since a word represents a specific sphere of reality, words become a powerful tool in defining man's subjective representation of reality. By means of language man can imagine problem situations (cognitive needs) and possible solutions and develop a definite set to activity without recourse to reality. Through objectification man is capable of logical calculus, of performing operations upon operations, and thereby organizing his knowledge of reality. At this level, there are many similarities between set and Piaget's cycle of assimilation-accommodation.

To sum, then, the concept of set has the following characteristics:

1. set is a psychological realm sui generis;

2. set is a phenomenon which does not represent a content of consciousness. It forms the basis for the emergence of consciousness in that set is a readiness for activity. In this manner the unconscious is seen as a positive concept as opposed to the negative character of the unconscious as posited by Freud;

3. set is the dynamic structural unit of the integral personality into which the activity of the organism is incorporated;

4. set is the basis for the emergence of all activity of the personality, such as perception, cognition, and memory. The mechanism by which all human activities arise out of set is referred to as objectification. By this is meant the subjective representation of the environment or the development of a model of "reality";

5. Set is the mechanism by which all behavior is organized and integrated.

Further discussions by the authors on the psychology of set can be found in Canadian Psychologist (in press) and Soviet Psychology (in press).

GLOSSARY

1. Comparison of Soviet and Western approaches to the concept of set

The phenomenon referred to as set has been observed in nearly all areas of psychology and various explanations have been proposed for it. On the one hand, some psychologists, such as Luchins, have postulated a general, fundamental mechanical tendency. In this view, perseverance in a habitual mode of response is viewed as a basic characteristic of human behavior. On the other hand, others, such as Helson, point out that such repetitive activity is created by special factors in the situation, or, like Uznadze, to special factors in the person. Some psychologists reject the inertia principle and postulate variability of response as a general tendency. Those who hold to an inertia principle have trouble explaining variability; those who start with variability have trouble with the problem of perseveration. Others take a compromise position and state that both tendencies may exist in all individuals but in different amounts. This view is reflected in Spearman's P-factor, the variety of rigidity factors in differential psychology, and in the repetition compulsion and death instinct of Freudian psychoanalysis.

The concept of set has been used by psychologists such as Uznadze and Bruner as proof that the organism does not passively register stimuli but selects stimuli and directs its responses. This view has been at variance with certain behaviorists who contend that behavior is explicable solely in terms of stimulus and response. Since behaviorism has been the dominant view in American psychology, set disappeared from psychological literature for some time. Within the past thirty years, set has gained acceptance once again, even among behaviorists such as Helson. This acceptance has been facilitated by research in perception and by neo-behavioristic approaches

to learning.

The phenomenon of set has been with us for nearly the entire history of psychology. A variety of descriptions and speculations has been proposed to account for set. In their dictionary of terms, English and English list the following definitions of set used in Western psychology:

> 1. a group, lot, aggregate, or series of items of any sort;
>
> 2. a temporary, but often recurrent, condition of the person or organism that (a) orients him (it) toward certain environmental stimuli or events rather than toward others, selectively sensitizing him (it) for apprehending them; (b) facilitates certain activities or responses rather than others. In its earlier psychological usage, set was a more or less temporary facilitating condition produced by instructions or by some manipulation of the experimental conditions. It was thus separable from enduring dispositions--habits, instincts, sentiments, attitudes--and from habit strength or associative bond strength. Somewhat like a drive, it worked upon a particular action system from outside that system. But a temporary set can become an enduring disposition or habit, a simple attitude; and the term now often includes that meaning. Synonyms include Einstellung, determining tendency, disposition.
>
> 3. the establishment of a fixed form of behaving; habituation; stereotyping.

Set is often qualified to show the kind of effect produced by an organic or personal condition, e.g., attitudinal set, affective set, motor set.

2. The phasic course of set extinction

a. contrast illusion. The object is perceived as being larger on that side in which during the set fixation tests the smaller object was perceived.

b. assimilative illusion. The object is perceived as being larger on that side in which during the set fixation tests the larger object was perceived.

c. adequate (veridical) perception. The objects are perceived as being equal.

3. The dimensions of set characteristics

According to Uznadze, set may have the following attributes:

a. Sets may be diffuse (undifferentiated) or fixed (differentiated). This dimension refers to the adequacy of the set to the given behavioral conditions. Once a set has evolved, it preserves a readiness for reactivation under similar conditions.

b. Sets differ in excitability. Individuals differ to a considerable extent in regard to the ease of development of a fixated set. This dimension has been used as a basis for personality and psychopathologic differentiation.

c. Sets may be static or dynamic. In static sets, veridical perception is not attained in spite of multiple exposures during the critical tests. In dynamic sets, veridical perception is reached. This bipolar dimension has been used in personality differentiation.

d. Sets may be plastic or rigid. In the case of plastic sets, the process of extinction is gradual, passing through the various stages of set extinction. In rigid sets, extinction is rapid, unprefaced by

the various stages.

e. Sets may be stable or labile. In the former, once a set is fixated it tends to endure unchanged over time. In the latter, fixated sets tend to change over time.

f. Sets may involve differences in degree of generalization. That is, sets which are fixated by one set of stimuli may be activated by stimuli of varying degrees of similarity.

g. Sets may vary in the degree of irradiation or cross-modality transfer. In this, a set developed in one modality is manifested in varying degrees in other modalities.

TABLES AND APPENDICES

TO ACCOMPANY PAPER NO. 1

Linguistic Correlates of Set Characteristics

Raymond L. Hertzog

TABLE I

MEAN SCORES, U VALUES AND LEVELS OF SIGNIFICANCE OF CHARACTERISTICS OF LINGUISTIC CODES FOR HIGH HAPTIC EXCITABILITY SAMPLE AND FOR LOW HAPTIC EXCITABILITY SAMPLE

Code Characteristics	High Haptic Excitability Mean Scores	Low Haptic Excitability Mean Scores	U	P
Egocentric : sociocentric	2.640	1.100	16.0	.052
Subordinate clauses	0.352	0.367	28.5	.360
Subordinate adjective clauses	0.144	0.074	10.0	.010*
Uncommon subordinate clauses	0.231	0.165	15.0	.041*
Loban Index	0.073	0.051	21.0	.139
Loban B, C and D clauses	0.422	0.124	6.0	.002*
Verbal stem complexity	0.235	0.101	4.5	.001*
Total adjectives	0.102	0.146	12.0	.019*
Uncommon adjectives	0.070	0.045	7.0	.003*
Total adverbs	0.053	0.052	31.0	.480
Uncommon adverbs	0.035	0.022	3.0	.001*
Passive verbs	0.306	0.099	1.0	.000*
Personal pronouns	0.050	0.035	12.0	.019*
Vocabulary (%)	50.7	51.6	32.0	.520
Length	459	255	6.0	.002*
Abstraction	4.84	0.530	0.0	.000*
Generalization	4.56	0.500	0.0	.000*

TABLE II

MEAN SCORES, U VALUES AND LEVELS OF SIGNIFICANCE OF CHARACTERISTICS OF LINGUISTIC CODES FOR HIGH VISUAL EXCITABILITY SAMPLE AND FOR LOW VISUAL EXCITABILITY SAMPLE

Code Characteristics	High Visual Excitability Mean Scores	Low Visual Excitability Mean Scores	U	P
Egocentric : sociocentric	2.370	1.550	27.0	.323
Subordinate clauses	0.316	0.348	29.5	.399
Subordinate adjective clauses	0.130	0.114	28.0	.360
Uncommon subordinate clauses	0.209	0.121	8.0	.005*
Loban Index	0.053	0.045	30.0	.439
Loban B, C and D clauses	0.486	0.126	29.0	.399
Verbal stem complexity	0.238	0.120	9.0	.007*
Total adjectives	0.124	0.132	29.0	.399
Uncommon adjectives	0.084	0.042	4.0	.001*
Total adverbs	0.053	0.053	29.5	.399
Uncommon adverbs	0.041	0.022	1.0	.000*
Passive verbs	0.398	0.093	0.0	.000*
Personal pronouns	0.043	0.027	14.0	.032*
Vocabulary (%)	46.8	49.7	20.0	.117
Length	354	185	2.0	.000*
Abstraction	4.75	1.00	0.0	.000*
Generalization	4.44	0.81	2.0	.000*

TABLE III

MEAN SCORES, U VALUES AND LEVELS OF SIGNIFICANCE OF CHARACTERISTICS OF LINGUISTIC CODES FOR HIGH RATE OF HAPTIC EXTINCTION SAMPLE AND FOR LOW RATE OF HAPTIC EXTINCTION SAMPLE

Code Characteristics	High Rate of Haptic Extinction Mean Scores	Low Rate of Haptic Extinction Mean Scores	U	P
Egocentric : sociocentric	2.090	1.230	20.5	.117
Subordinate clauses	0.301	0.349	25.5	.253
Subordinate adjective clauses	0.121	0.111	31.0	.480
Uncommon subordinate clauses	0.217	0.144	16.0	.052
Loban Index	0.066	0.042	19.0	.097
Loban B, C and D clauses	0.431	0.097	2.0	.000*
Verbal stem complexity	0.234	0.121	9.0	.007*
Total adjectives	0.106	0.053	13.0	.025*
Uncommon adjectives	0.079	0.038	6.0	.002*
Total adverbs	0.050	0.039	15.0	.041*
Uncommon adverbs	0.030	0.022	15.0	.041*
Passive verbs	0.330	0.093	1.0	.000*
Personal pronouns	0.081	0.037	8.0	.005*
Vocabulary (%)	51.6	49.2	23.0	.191
Length	340	205	3.0	.001*
Abstraction	4.59	0.72	0.0	.000*
Generalization	4.13	0.72	2.0	.000*

TABLE IV

MEAN SCORES, U VALUES AND LEVELS OF SIGNIFICANCE OF CHARACTERISTICS OF LINGUISTIC CODES FOR HIGH RATE OF VISUAL EXTINCTION SAMPLE AND FOR LOW RATE OF VISUAL EXTINCTION SAMPLE

Code Characteristics	High Rate of Visual Extinction Mean Scores	Low Rate of Visual Extinction Mean Scores	U	P
Egocentric : sociocentric	1.400	1.230	26.5	.287
Subordinate clauses	0.276	0.377	16.0	.052
Subordinate adjective clauses	0.119	0.066	10.0	.010*
Uncommon subordinate clauses	0.181	0.149	25.0	.253
Loban Index	0.056	0.055	31.0	.480
Loban B, C and D clauses	0.403	0.147	2.0	.000*
Verbal stem complexity	0.208	0.134	12.0	.019*
Total adjectives	0.100	0.145	13.0	.025*
Uncommon adjectives	0.115	0.040	5.0	.001*
Total adverbs	0.047	0.054	23.0	.191
Uncommon adverbs	0.031	0.019	13.0	.025*
Passive verbs	0.322	0.088	0.0	.000*
Personal pronouns	0.050	0.041	22.0	.164
Vocabulary (%)	52.3	50.4	24.0	.221
Length	392	205	6.0	.002*
Abstraction	4.38	0.69	0.0	.000*
Generalization	3.72	0.34	1.0	.000*

TABLE V

MEAN SCORES, U VALUES AND LEVELS OF SIGNIFICANCE OF CHARACTERISTICS OF LINGUISTIC CODES FOR STRONG IRRADIATION SAMPLE AND FOR WEAK IRRADIATION SAMPLE

Code Characteristics	Strong Irradiation Mean Scores	Weak Irradiation Mean Scores	U	P
Egocentric : sociocentric	1.660	1.170	26.5	.287
Subordinate clauses	0.358	0.355	32.0	.520
Subordinate adjective clauses	0.189	0.136	19.5	.097
Uncommon subordinate clauses	0.291	0.148	1.5	.000*
Loban Index	0.098	0.048	2.0	.000*
Loban B, C and D clauses	0.425	0.126	2.0	.000*
Verbal stem complexity	0.219	0.090	10.0	.010*
Total adjectives	0.192	0.140	13.0	.025*
Uncommon adjectives	0.132	0.041	0.0	.000*
Total adverbs	0.056	0.042	19.0	.097
Uncommon adverbs	0.045	0.020	0.0	.000*
Passive verbs	0.366	0.141	8.0	.005*
Personal pronouns	0.057	0.035	9.0	.007*
Vocabulary (%)	50.1	49.2	28.0	.360
Length	381	284	6.5	.002*
Abstraction	4.44	0.69	3.0	.001*
Generalization	4.25	0.50	2.0	.000*

TABLE VI

DIRECTION OF SIGNIFICANT DIFFERENCES IN TABLES I-V FOR CHARACTERISTICS OF LINGUISTIC CODES FOR HIGH VS. LOW SAMPLES

Code Characteristics	Tables I	II	III	IV	V
Egocentric : sociocentric					
Subordinate clauses					
Subordinate adjective clauses	>			>	
Uncommon subordinate clauses	>	>			>
Loban Index					>
Loban B, C and D clauses	>		>	>	>
Verbal stem complexity	>	>	>	>	>
Total adjectives	<		>	<	>
Uncommon adjectives	>	>	>	>	>
Total adverbs			>		
Uncommon adverbs	>	>	>	>	>
Passive verbs	>	>	>	>	>
Personal pronouns	>	>	>		>
Vocabulary (%)					
Length	>	>	>	>	>
Abstraction	>	>	>	>	>
Generalization	>	>	>	>	>

APPENDIX A

CHARACTERISTICS OF LINGUISTIC CODES

The criteria for linguistic codes are derived from Lawton (1963, 1964a). They are:

1. Egocentric and sociocentric sequences ("I think" vs. "you know"). The relative frequencies are expressed as a ratio of egocentric : sociocentric sequences.

2. Subordinate clauses. This measure is obtained by dividing the total number of finite subordinate clauses by the total number of finite verbs.

3. Subordinate adjective clauses. This is expressed as a ratio of total subordinate adjective clauses divided by the total number of finite verbs.

4. Uncommon subordinate clauses. This is expressed as a ratio of the total subordinate clauses (excluding noun-clause objects and adverb clauses of "time") to the total number of finite verbs.

5. Loban Weighted Index of Subordination. All subordinate clauses are subdivided into four categories:

A. A subordinate clause which is directly dependent on a main clause. (First order dependence) = 1 point.

B. A dependent clause modifying or placed within another dependent clause. (Second order dependence) = 2 points.

C. A dependent clause containing a verbal construction (i. e., infinitive, gerund, participle) = 2 points.

D. A dependent clause modifying or placed within another dependent clause which, in turn, is within or modifying another dependent clause. (Third order dependence) = 3 points.

The Loban score is obtained and divided by the total number of words written.

6. Loban B, C and D clauses. This index is derived by dividing the number of B, C and D clauses (i. e., the more complex class) by the total number of subordinate clauses (total of A, B, C and D).

7. Complexity of verbal stem. The criterion of complexity is three or more words in the verbal stem or a verb plus an infinitive. Complex verb stems are counted and divided by the total number of finite verbs.

8. Total adjectives. This measure is obtained by dividing the total number of occurrences of adjectives by total words.

9. Uncommon adjectives. This measure is obtained by excluding all repetitions of an adjective and all those which occur in a list of the 100 most commonly used words (West, 1953). This figure is divided by total words.

10. Total adverbs. As defined for total adjectives above (number 8).

11. Uncommon adverbs. As defined for uncommon adjectives above (number 9).

12. Passive verbs. This measure is obtained by dividing total passives by total finite verbs.

13. Personal pronouns. This is obtained by dividing the total number of personal pronouns (excluding "I think" and sociocentric sequences) by the total number of words.

14. Vocabulary. This is a count of the total number of words used which are contained in the list of "most common 100 words" and expressed as a percentage of total words used.

15. Length of essays. This represents the total number of words written.

16. Content analysis. For the essays "Home" and "My Life in 1976" it is possible to write personally or impersonally, abstractly or concretely. To measure this difference as objectively as possible the essays will be scored on the following 4 point scales.

a. Abstraction scale: "Home" and "My Life in 1976"

i completely abstract

ii more than 50% abstract

iii more than 50% concrete

iv completely concrete

b. Generalization scale: "Home"

Does the writer mention his own home . . .

i. not at all

ii for less than 50% of writing

iii for more than 50% of writing

iv all the time

c. Generalization scale: "My Life in 1976"

Does the writer mention his own life . . .

i not at all

ii for less than 50% of the writing

iii for more than 50% of writing

iv all the time

The scales (Abstraction and Generalization) are usually closely connected but not always: for example it is possible for a boy to write about his own home all the time without being completely concrete if he mentions "love" or "security," etc.

d. Scoring system

i counts as 3 points

ii counts as 2 points

iii counts as 1 point

iv counts as 0 points

The score for the Abstraction scale is obtained by adding the scores on Abstraction of the essays "Home" and "My Life in 1976." The same procedure holds for the Generalization scale.

APPENDIX B

THE INSTRUMENT USED TO ELICIT LINGUISTIC CODES

Please write on each of the following:

1. **"Home"**
2. **"My Life in 1976"**
3. **A foreigner has never seen teen-age dancing or heard teen-age music but wants to get to know and understand the dances and music. Explain to her carefully what teen-age dancing and music is all about.**

Please answer the following questions:

1. **In a shipwreck, why should women and children be saved first?**
2. **Why should a promise be kept?**
3. **Why are criminals locked up?**
4. **Do you think it is a good idea for films to be classified U, A, or X? Why?**

TABLES TO ACCOMPANY PAPER NO. 2

Soviet and Western Approaches to Personality:
A Theoretical and Experimental Comparison

John Hritzuk

TABLE I

PERFORMANCE OF HYSTERICS (H) AND DYSTHYMICS (D) ON SET EXCITATION, EXTINCTION AND IRRADIATION

Modality Involved	Excitation or Extinction		Trials							D	d) Critical D
			a) 0	b) 1-2	3-5	6-10	11-15	16-19	c) 20+		
Haptic	Excitation	H	-	14	1	0	1	0	0	9	9*
		D	-	5	10	0	0	1	0		
Haptic	Extinction	H	-	2	6	2	1	5	0	4	9
		D	-	6	5	2	1	1	1		
Visual	Excitation	H	-	0	9	2	0	0	5	11	9*
		D	-	0	0	0	1	0	15		
Visual	Extinction	H	5	2	4	0	0	5	0		e)
		D	15	1	0	0	0	0	0		
Haptic to visual	Excitation of Irradiated set	H	-	3	6	2	0	0	5	11	9*
		D	-	0	0	0	0	0	16		
Visual	Extinction of Irradiated set	H	5	4	0	1	2	4	0		e)
		D	16	0	0	0	0	0	0		

TABLE II

PERFORMANCE OF NEUROTICS (N) AND STABLE (S) ON SET EXCITATION, EXTINCTION AND IRRADIATION

Modality Involved	Excitation or Extinction		Trials							D	d) Critical D
			a) 0	1-2	3-5	6-10	11-15	16-19	c) 20+		
Haptic	Excitation	N	-	7 b)	0	0	0	0	0	1	6
		S	-	6	1	0	0	0	0		
Haptic	Extinction	N	-	0	2	0	0	5	0	1	6
		S	-	1	1	0	0	5	0		
Visual	Excitation	N	-	0	0	1	1	0	5	1	6
		S	-	1	0	0	1	0	5		
Visual	Extinction	N	5	0	0	0	0	2	0		e)
		S	5	0	0	0	0	2	0		
Haptic to Visual	Excitation of Irradiated set	N	0	0	0	0	0	0	7	0	6
		S	0	0	0	0	0	0	7		

TABLE III

PERFORMANCE OF EXTRAVERTS (E) AND INTROVERTS (I)

ON SET EXCITATION AND EXTINCTION

Modality Involved	Excitation or Extinction		Trials							D	d) Critical D
			a) 0	1-2 b)	3-5	6-10	11-15	16-19	c) 20+		
Haptic	Excitation	E	-	6	0	0	0	0	0	1	6
		I	-	5	1	0	0	0	0		
Haptic	Extinction	E	-	1	5	0	0	0	0	4	6
		I	-	5	1	0	0	0	0		
Visual	Excitation	E	-	1	0	0	0	0	5	1	6
		I	-	0	0	0	0	0	6		
Visual	Extinction	E	4	2	0	0	0	0	0		e)
		I	6	0	0	0	0	0	0		

TABLES TO ACCOMPANY PAPER NO. 3

Set Characteristics, Psycholinguistic Factors and Personality Factors as Related to Achievement Scores of Teacher Trainees

Waldemar R. Unruh

TABLE 1

CORRELATIONS BETWEEN ACHIEVEMENT MEASURES AND MMPI SCALES

N=133

	MHV	GPA	English	Ed.Ps.	Ed.Fnd.	Ed.Admin.
L	-.17*	-.16	-.07	-.04	.14	.01
F	-.02	-.14	.15	-.16	-.19*	-.05
K	.08	.22	.04	.09	.30*	.19*
Hs	-.01	-.02	.00	.02	-.15	.03
D	-.01	.08	.00	.09	-.06	.09
Hy	.09	.13	.05	.10	.15	.21*
Pd	-.02	-.21*	-.12	-.07	-.25*	-.17*
Mf	.17*	.14	.18*	.15	.03	.23*
Pa	-.13	-.05	-.05	-.09	-.06	-.02
Pt	-.07	-.16	-.04	-.11	-.26*	-.15
Sc	-.05	-.21*	-.13	-.13	-.27*	-.13
Ma	-.03	-.32*	-.19*	-.17*	-.31*	-.21*
Sie	.02	-.02	.03	.07	-.09	-.03

TABLE 2

CORRELATIONS BETWEEN SET MEASURES AND MMPI SCALES

	N=133					
	HF	HE	VF	VE	HF	VE
L	.05	.00	.01	.08	.06	.11
F	.01	-.02	.08	-.05	.06	-.06
K	.10	-.03	-.08	.19	-.09	.11
Hs	-.02	-.02	.11	-.08	.10	-.08
D	-.06	.01	-.04	-.11	.00	-.04
Hy	.07	-.06	-.01	-.06	-.07	.06
Pd	.07	.09	-.09	-.09	-.11	-.17
Mf	-.13	-.04	-.02	.03	.12	.06
Pa	-.02	.02	.04	-.09	.03	.01
Pt	-.06	-.04	.10	-.16	.07	-.14
Sc	-.02	-.09	.06	-.17	.00	-.14
Ma	-.03	-.02	.07	-.01	.04	-.08
Sie	.05	-.12	.06	-.15	.07	-.08

TABLE 3

CORRELATIONS BETWEEN SET MEASURES

N = 133

	HF	HE	VF	VE	HF	VE
HF		.00	.17	.20	.32	.29
HE			.48	.52	.67	.64
VF				.46	.39	.44
VE					.48	.46
HF						.52
VE						

TABLE 4

CORRELATIONS BETWEEN SET MEASURES AND ACHIEVEMENT MEASURES

N = 133

	MHV	GPA	English	Ed.Ps.	Ed. Fnd.	Ed.Admin.
HF	.00	-.01	-.10	.04	-.01	.05
HE	-.06	-.01	.10	.20	.11	.10
VF	-.09	.04	-.06	.06	.01	-.03
VE	-.12	-.01	.01	.12	.13	-.03
HF	-.09	-.01	-.03	.13	.01	-.03
VE	.03	-.03	-.03	.12	.15	.12

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